1/7/87
K.3

CITY OF SAINT LOUIS PARK

January 8, 1987

Mr. Daniel J. Bicknell
Remedial Project Manager
United States Environmental
Protection Agency
Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Mr. Douglas J. Robohm
Project Manager
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155

Dear Dan and Doug:

Enclosed is a draft of the proposed SLP 4 Feasibility Study Plan for the Reilly Tar and Chemical Corporation project. I believe the draft does address the issues raised during our December 11 and 12, 1986 meeting. Please review the proposal and contact me regarding its contents. Hopefully, this draft, with minor modification, will be acceptable to all of us. If I am mistaken, it may be necessary to have a conference call to address the issues.

I look forward to hearing from you.

Sincerely,

James N. Grube
Director of Public Works

JNG/ja
Enclosure

cc: John Craun (w/enclosure)
Dale Wikre (w/o enclosure)

5005 minnetonka boulevard • st. louis park, minnesota 55416-2290 • phone (612) 924-2500

GRADIENT CONTROL WELL DISCHARGE

FEASIBILITY STUDY PLAN

(REVISED)

DRAFT

DATE 1/7/87

Purpose

Section 7.2.1 of the Remedial Action Plan requires submittal of "a plan for a feasibility study for discharge of 1,000 gallons per minute of water from SLP4. This study shall examine the feasibility of discharging water from SLP4 to surface waters, and shall include consultation with governmental entities responsible for the management of the surface water bodies which are considered." This plan is submitted pursuant to that requirement.

Scope

The feasibility study will consist of six tasks:

Task 1 - Description of Proposed Response
Task 2 - Preliminary Remedial Technologies
Task 3 - Development of Alternatives
Task 4 - Initial Screening of Alternatives
Task 5 - Evaluation of Alternatives
Task 6 - Report

The Consent Decree specifies that gradient control shall be done by pumping Well SLP 4. The negotiations that took place prior to the Consent Decree resulted in agreement on the need for gradient control, the location of pumping wells and the volumes to be pumped. The Consent Decree specifically addressed the monitoring to measure the effectiveness of the gradient control system and how to proceed if modifications are necessary. This study will not revisit those issues but will be limited to alternatives to manage the water to be pumped from SLP 4. The Consent Decree only requires that surface water discharge alternatives be

evaluated. This study will be done in accordance with EPA Guidance on Feasibility Studies Under CERCLA, June, 1985, as appropriate and consistent with the requirements of the Consent Decree. However, the City retains all rights granted to the City directly or to the City through Reilly Tar and Chemical.

Following are detailed descriptions of the tasks which will comprise the feasibility study.

Task 1 - Description of Proposed Responses

The purpose of this task is to briefly document the problem and proposed remedy. A description of the nature of contamination of the Prairie du Chien-Jordan aquifer, in which SLP 4 is completed, will be provided. The area and degree of contamination and past and present response actions will be identified.

The purpose of the response action will be discussed. This discussion will address the threat posed by the existence of the contaminants in the aquifer and their potential for migration to presently unaffected areas including Edina and Minneapolis. It will also address the objective of the gradient control well system and what role pumping SLP4 plays in meeting that objective.

Task 2 - Preliminary Remedial Technologies

The Consent Decree has selected groundwater gradient control as the selected technology to address the off-site migration of pollutants in the Prairie du Chien-Jordan aquifer. This task will generally describe the gradient control technology and its applicability to this situation.

Task 3 - Development of Alternatives

The Consent Decree limits the range of alternatives that can be developed. It precludes the no action alternative and any alternative that does not meet the relevant public health and environmental standards. This

task will inventory the surface water bodies in St. Louis Park and the surrounding communities. From this inventory of surface waters, several discharge alternatives will be developed.

Task 4 - Initial Screening of Alternatives

The alternatives from Task 3 will be screened to eliminate those that are clearly infeasible or inappropriate. The screening will be based on environmental effects, technical feasibility and cost. At a minimum, three surface water bodies will be evaluated for feasibility of gradient control discharge reception. They are the Minneapolis Chain of Lakes (specifically Lake Calhoun and connected Lake of the Isles), Minnehaha Creek and the Mississippi River. As the study progresses, an alternative that involves discharges to more than one water body may be included if it is more desirable based on the analyses performed for Task 5 below.

Task 5 - Evaluation of Alternatives

In order to evaluate the cost-effectiveness of alternatives, each of the identified alternatives that passes through the initial screening will be analyzed for its technical feasibility, environmental effects, public health effects, institutional requirements and cost. The analysis to be performed in each of these areas is further described below.

A. Technical Analysis

For each alternative, the ability of the receiving water body and the route to that water body to physically accommodate the additional flow will be evaluated. The analysis will address potential impacts on water levels, flooding and ice problems. Possible system modifications required to make the proposed discharge physically feasible will be defined along with the expected time requirements for their completion. Requirements for operation, maintenance, and monitoring of the discharge system will be specified.

B. Environmental Analysis

Existing data on water quality for the potential receiving water bodies and that expected for the gradient control discharge will be presented. The draft NPDES discharge criteria will be compared to corresponding values expected in the discharge water. ~~It is anticipated that the NPDES criteria will be met without the need for treatment.~~ Based on the expected actual discharge quality and quantity, the potential environmental impacts on the receiving water will be estimated. This analysis will include a discussion of the degree to which each alternative meets the requirements of applicable environmental laws, criteria, regulations or guidelines. The expected benefits to, or adverse effects on, the surface water environment proposed to receive the discharge will be discussed.

C. Public Health Analysis

The potential health risks, if any, associated with the discharge will be evaluated. This will involve identifying the affected population, means of short & long term exposure (e.g., swimming, ingestion, or fish consumption), projected level of exposure, and pertinent human health related criteria, standards or guidelines.

levels & characterization of contaminants,

D. Institutional Analysis

Each alternative will be evaluated based on relevant institutional requirements. Specifically, the regulatory and permitting requirements, community relations, and participating agency coordination involved with the alternative will be assessed. Concerns and requirements of at least the following interested parties will be addressed:

Minnehaha Creek Watershed District
Minneapolis Park Board
St. Louis Park Public Works

n of each alternative will be
will be calculated and will
operation and maintenance cost
will be calculated using a 10-year
and an effective interest rate of

e Alternatives

ated alternatives will be made. This
n of the alternatives with succinct
attributes as determined in the above
on of the relative merits of each alternative
and will address both cost and non-cost
lative expediency of implementation of the
also be discussed. Based on the discussion, a
ve or combination of alternatives will be

f approval of this plan, a report will be submitted to
and EPA Regional Administrator. The report will present
asks 1 through 5 described above and will include
lementing its findings.

Minneapolis Public Works
Edina Public Works
Minnesota Pollution Control Agency
Minnesota Department of Natural Resources
Minnesota Department of Health

E. Cost Analysis

Costs associated with implementation of each alternative will be estimated. Present value costs will be calculated and will include both capital and annual operation and maintenance cost projections. The present value will be calculated using a 10-year and 30-year period of operation and an effective interest rate of 5 percent.

F. Evaluation of Cost-Effective Alternatives

A comparison of the evaluated alternatives will be made. This will involve tabulation of the alternatives with succinct statements of their attributes as determined in the above analyses. A discussion of the relative merits of each alternative will be provided and will address both cost and non-cost attributes. The relative expediency of implementation of the alternatives will also be discussed. Based on the discussion, a single alternative or combination of alternatives will be recommended.

Task 6 - Report

Within 90 days of approval of this plan, a report will be submitted to the MPCA Director and EPA Regional Administrator. The report will present the results of Tasks 1 through 5 described above and will include information supplementing its findings.